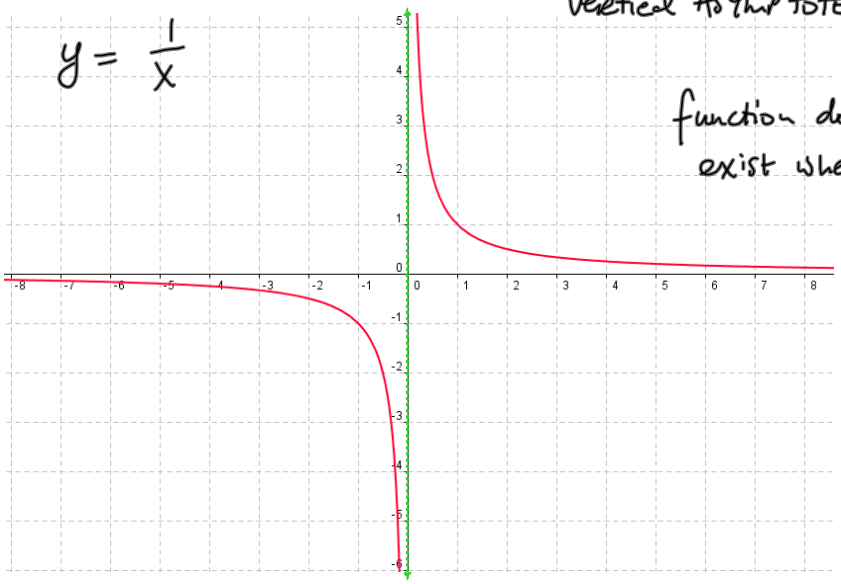
Graphs - Reciprocal Functions

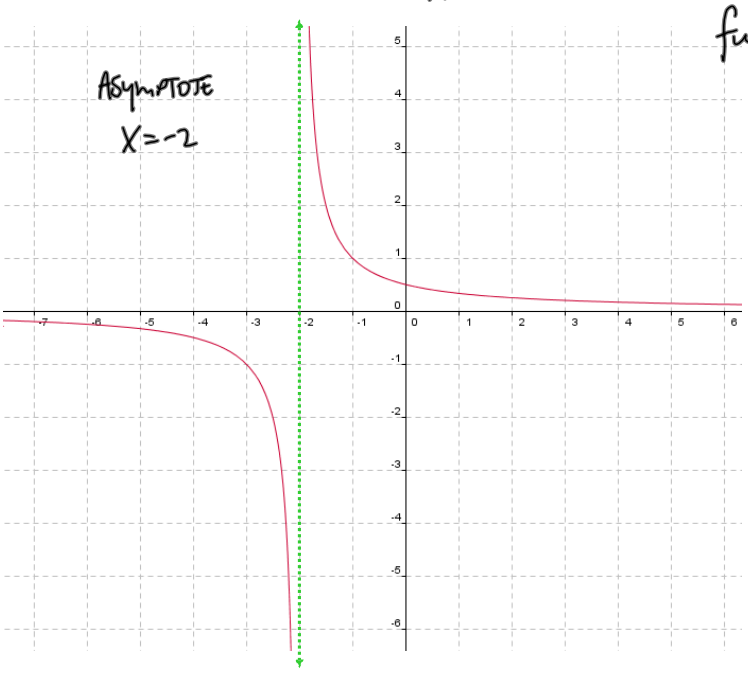
$y = \frac{1}{x}$



Vertical Asymptote, y-axis

function doesn't exist when x=0

Graph. $f(x) = \frac{1}{x+2}$

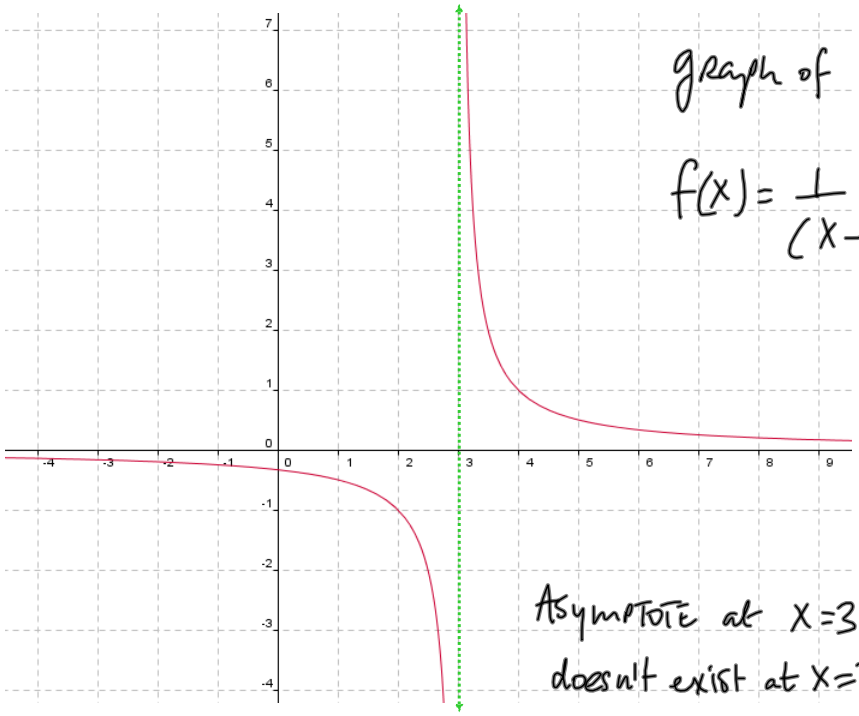


Asymptote $x=-2$

Reciprocal Graphs

function doesn't exist when $x=-2$

Reciprocal function

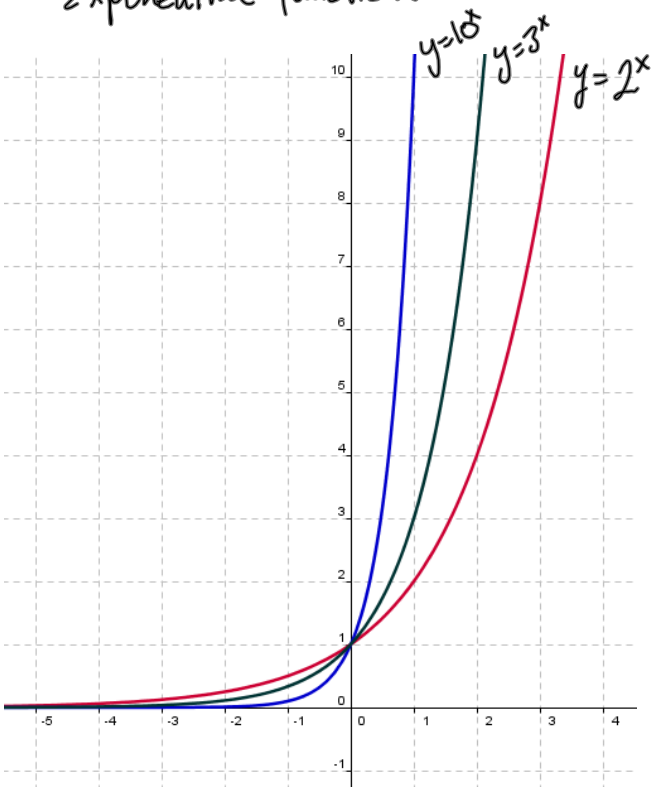


graph of

$f(x) = \frac{1}{(x-3)}$

Asymptote at $x=3$ because $f(x)$ doesn't exist at $x=3$

Exponential functions



→ crawl towards infinity

Can you use these graphs to estimate the shape of e^x?